

## ABSTRACT

With the enhancement of communication throughput in each transmitting and receiving station according to the fading fluctuation velocity between transmitting stations and receiving stations as the object, signal transmitted from a radio communication apparatus of another party is received by antenna 9 and reception RF section 1, channel time variation detection section 3 detects the time variation amount of channel response using this received signal, and pilot signal insertion interval determination section 4 determined insertion interval of the pilot signals using the detected time variation amount of channel response. Then, based on this determined insertion interval, transmission section 5 inserts pilot signals into information signals to be transmitted and transmits the information signals into which pilot signals have been inserted to the radio communication apparatus of another party, thereby making possible the transmission of information signals based on pilot signal insertion interval optimum for the relevant propagation channel, determined from the detected result of time variation amount of channel response, and enhancement of communication throughput by eliminating redundant pilot signals.